Subject Index—Volume 1

A

Abdomen
  aortography of, 327
  control of lymphography of, with radioisotopes, 414
  mechanism of obstruction of infradiaphragmatic portion of inferior vena cava in presence of increased pressure of, 37
Acetylcholinesterase inhibition by some organic contrast media, 237
Acid, tannic, administered by enema, toxicity of, 408
Adenomas, parathyroid, detection of, 96
Age-dependence
  changes based on, in metacarpal cortical thickness, 394
  of bone thickness radiographically determined, 144
Air drift, interalveolar, 7
Albumin, ^{131}I colloidal, as agent for scanning liver and spleen, 295
Aneurysms, intracranial, natural history of, 250
Angiocardiograms, biplane, computer method for calculation of left ventricular volume from, 139
Angiocardiography
  effects of injections on blood viscosity during, 330
  hemodynamic effects of, 398
  intravascular pressure response to contrast substance used for, 170
Angiograms, coronary, angiomorphology of, 89
Angiography
  anticoagulant activity of contrast media for, 162
  carotid, cerebrospinal fluid pressure recordings during, 91
  celiac and superior mesenteric, effect of bradykinin on, 422
  cerebral
    complication rates of meglumine iothalamate and sodium diatrizoate in, 334
    relations of arterial trauma to complications of, 335
  comparative blood pressure changes in, with meglumine iothalamate 60% and 50% sodium diatrizoate, 243
  contributions of, to pathophysiology of subdural hematomas, 172
  double-blind test comparing contrast media for intravascular use in, 246
  hepatic outflow tract and ascites studied by, 243
  in carcinoma of pancreas, 91
  mapping of regional cerebral circulation by, 204
  selective
    of bronchial and intercostal arteries, 415
    of adrenal glands, 332
  size of ascending aorta in congenital heart disease determined by, 410
  to study altered opacification of external carotid circulation by changes of end expiratory carbon dioxide tension, 123
  unilateral cerebral, blood–brain barrier changes associated with, 431
Angio-renography, studies in living rats during development of renal cortical necrosis by, 3
Anomaly, Ebstein's, 63
Anticoagulation, angiographic contrast media activity of, 162
Antimony deposits in lung detected in vivo by differentiated absorption of x-radiation, 244
Aorta
  ascending, in congenital heart disease, angiographic determination of size of, 410
  renal artery and vein flow during occlusion of, 148
  subvalvar jet of, 88
Aortography
  abdominal, 327
  localization of controlled gastro-intestinal hemorrhage in dogs by, 245
Arrhythmia, cardiac, due to contrast material, 338
Arteriography
  bronchial, transverse myelitis following, 95
  cerebral, intercurrent embolization during, 107
  coronary, 14
  in estimating hemodynamic significance of renal artery stenoses, 281
  renal
    contractions of arteries during, 329
    experimental, 253
    with Teflon catheters, 69
Artery (ies)
  basilar and vertebral, spasm of, caused by experimental subarachnoid hemorrhage, 246
  carotid
    altered opacification of circulation of, by changes of end expiratory carbon dioxide tension, 123
    blood flow of, during intracranial hypertension, 12
    cerebrospinal fluid pressure recordings during angiography of, 91
    determination of flow in, using radiographic technique, 113
  coronary, mechanical strain on, 306
  differential localization of isotopes in tumors by injection of hydrogen peroxide into, 1
  extracoronary, of myocardium, 8
  fallacy of applying Poiseuille equation to segmental stenosis of, 9
  infusion of head and neck through, 89
  intercostal, selective angiography of, 415

Subject Index—Volume 1

A

Abdomen
  aortography of, 327
  control of lymphography of, with radioisotopes, 414
  mechanism of obstruction of infradiaphragmatic portion of inferior vena cava in presence of increased pressure of, 37
Acetylcholinesterase inhibition by some organic contrast media, 237
Acid, tannic, administered by enema, toxicity of, 408
Adenomas, parathyroid, detection of, 96
Age-dependence
  changes based on, in metacarpal cortical thickness, 394
  of bone thickness radiographically determined, 144
Air drift, interalveolar, 7
Albumin, ^{131}I colloidal, as agent for scanning liver and spleen, 295
Aneurysms, intracranial, natural history of, 250
Angiocardiograms, biplane, computer method for calculation of left ventricular volume from, 139
Angiocardiography
  effects of injections on blood viscosity during, 330
  hemodynamic effects of, 398
  intravascular pressure response to contrast substance used for, 170
Angiograms, coronary, angiomorphology of, 89
Angiography
  anticoagulant activity of contrast media for, 162
  carotid, cerebrospinal fluid pressure recordings during, 91
  celiac and superior mesenteric, effect of bradykinin on, 422
  cerebral
    complication rates of meglumine iothalamate and sodium diatrizoate in, 334
    relations of arterial trauma to complications of, 335
  comparative blood pressure changes in, with meglumine iothalamate 60% and 50% sodium diatrizoate, 243
  contributions of, to pathophysiology of subdural hematomas, 172
  double-blind test comparing contrast media for intravascular use in, 246
  hepatic outflow tract and ascites studied by, 243
  in carcinoma of pancreas, 91
  mapping of regional cerebral circulation by, 204
  selective
    of bronchial and intercostal arteries, 415
    of adrenal glands, 332
  size of ascending aorta in congenital heart disease determined by, 410
  to study altered opacification of external carotid circulation by changes of end expiratory carbon dioxide tension, 123
  unilateral cerebral, blood–brain barrier changes associated with, 431
Angio-renography, studies in living rats during development of renal cortical necrosis by, 3
Anomaly, Ebstein's, 63
Anticoagulation, angiographic contrast media activity of, 162
Antimony deposits in lung detected in vivo by differentiated absorption of x-radiation, 244
Aorta
  ascending, in congenital heart disease, angiographic determination of size of, 410
  renal artery and vein flow during occlusion of, 148
  subvalvar jet of, 88
Aortography
  abdominal, 327
  localization of controlled gastro-intestinal hemorrhage in dogs by, 245
Arrhythmia, cardiac, due to contrast material, 338
Arteriography
  bronchial, transverse myelitis following, 95
  cerebral, intercurrent embolization during, 107
  coronary, 14
  in estimating hemodynamic significance of renal artery stenoses, 281
  renal
    contractions of arteries during, 329
    experimental, 253
    with Teflon catheters, 69
Artery (ies)
  basilar and vertebral, spasm of, caused by experimental subarachnoid hemorrhage, 246
  carotid
    altered opacification of circulation of, by changes of end expiratory carbon dioxide tension, 123
    blood flow of, during intracranial hypertension, 12
    cerebrospinal fluid pressure recordings during angiography of, 91
    determination of flow in, using radiographic technique, 113
  coronary, mechanical strain on, 306
  differential localization of isotopes in tumors by injection of hydrogen peroxide into, 1
  extracoronary, of myocardium, 8
  fallacy of applying Poiseuille equation to segmental stenosis of, 9
  infusion of head and neck through, 89
  intercostal, selective angiography of, 415

internal carotid, effect of acute increase in intracranial pressure on blood flow in, 4
major bronchial, origin and distribution of, 174
nephrotoxicity of vasoactive drugs following selective injection of, 458
pressure, pulmonary, during emboli-induced pulmonary edema in dogs, 3
pulmonary
branching pattern, 87
postnatal development of vaso vasorum in, 87
relation of trauma of, to complications of cerebral angiography, 335
renal
contractions of, during arteriography, 329
effect of catheterization of, on renal function, 1
flow of, during aortic and inferior vena caval occlusion and retrograde renal phlebography, 148
minute-urography in unilateral stenosis of, 335
relative caliber of, 410
stenoses, renal, arteriography in estimating hemodynamic significance of, 281
supply, bronchial, in autotransplanted lung, bronchial dynamics and reconstitution of, 363
use of lipiodol in, to discover fat embolism of bone, 412
variable response of tumor vessels to epinephrine injected into, 205
Ascites, hepatic, 243

B

Bancroft's filariasis, lymphography in cases of lymphedema of extremities in, 13
Blocking, selective nerve root, with phenol under myelographic control, 257
Blood
brain barrier changes associated with unilateral cerebral angiography, 431
cells, red, after chronic x-ray exposure, precipitions in, 335
flow
carotid and vertebral, during intracranial hypertension, 12
in internal carotid artery, effect of acute increase in intracranial pressure on blood flow in, 4
measurement, coronary, indicator dilution technique in, 129
pressure changes in angiography with meglumine iothalamate 60% and 50% sodium diatrizoate, 243
vessels, normal and abnormal, chemically induced alterations in, 176
viscosity, effects of angiocardiographic injections on, 330
Bone
density measurements in vivo, 90
fat embolism of, 412
loss of, less in taller individuals as they grow older, 255
thickness, radiographically determined age dependence of, 144
Bradykinin, effect of, on celiac and superior mesenteric angiography, 422
Brain–blood barrier changes associated with unilateral cerebral angiography, 431
Bronchitis, chronic, correlation of postmortem human lungs in normal subjects and those with, 169
Bronchograms to evaluate postmortem human lungs, 169
Bronchus
angiography of, 415
arteriography of, 95
artery supply of, in autotransplanted lung, 363
elevated pressure on, to demonstrate anomalous pulmonary veins and atrial defects, 90
origin and distribution of major arteries of, 174

C

Canal, normal optic, and its anomalies, embryology of, 346
Carbon dioxide tension, end expiratory, altered opacification of external carotid circulation by changes of, 123
Carcinoma of pancreas, angiography of, 91
Cardiotoxicity, ventricular fibrillation due to roentgenographic contrast material concerning, 12
Catheter (s)
needles, disposable, 262
Teflon, selective renal arteriography with, 69
Catheterization, renal arterial, effect of, on renal function, 1
Cerebrum
averaging technique to localize midline structures of, 247
blood–brain barrier changes associated with unilateral angiography of, 431
complication rates of meglumine iothalamate and sodium diatrizoate in angiography of, 334
intercurrent embolization during arteriography of, 107
relation of arterial trauma to complications of angiography of, 335
Cholangiography, cine, 333
Chyluria, lymphography in Bancroft's filariasis related to, 13
Cinefluorography
analysis of normal pyelo-ureteral dynamics by, 198
hepatic outflow tract and ascites studied by, 243
motor function of esophagus following segmental resection in newborn dogs evaluated by, 411
Cineradiography
functional mechanism of mitral valve examined by, 92

nasal pressure changes during swallowing studied by, 225
Cinevenography of lower extremity, 101
Circulation
collateral lymphatic, during acute infection and lumbosacral sympathectomy, 94
external carotid, altered opacification of, by changes of end expiratory carbon dioxide tension, 123
pulmonary, x-ray densitometry in, 4
regional cerebral, angiographic mapping of, 214
Classification, roentgen, of cardiac malpositions, 17
Codification, radiopaque of ingested drugs, 180
Coil, shielded, for continuous scintillation monitoring of circulating radioactivity, 184
Communications, collateral lymphaticovenous, after obstruction of thoracic duct, 12
Complication rates of meglumine iothalamate and sodium diatrizoate in cerebral angiography, 334
Computer
diagnosis in radiology aided by, 72
method for calculation of left ventricular volume from biplane angiocardiograms, 139
Conray, blood pressure changes in angiography with, 243
Contrast
gelatin spherules loaded with, 328
material
cardiac arrhythmia due to, 338
roentgenographic, ventricular fibrillation due to, 12
transverse myelopathy following injections of, 417
media (ium)
angiographic
anticoagulant activity of, 162
for intravascular use, double-blind test in comparison of, 246
effects of, on pulmonary vasculature, 5
myelographic, recently developed, 85
organic, inhibition of acetylcholinesterase by, 237
particulate radiographic, for experimental flow pattern studies, 328
substance used for angiocardiography, intravascular pressure response to, 170
Cord, spinal, toxicity of, from iothalamate and diatrizoate compounds, 253
Coronary flow, quantitative determination of, with Positron emitter (Rubidium-84), 11
Cortex
age-dependent changes in metacarpal thickness of, 394
in living rats during development of renal necrosis of, 3
Cranium
aneurysms of, 250
carotid and vertebral blood flow during hypertension of, 12
effect of acute increase in pressure in, on blood flow in internal carotid artery, 4
emulsified iophendylate in subarachnoid space of, 264

D

Data blending to reduce statistical fluctuations in radioisotope scanning, 333
Defects
atrial, elevated intrabronchial pressure for demonstration of, 90
ventricular septal, in infancy, 336
Densitometry, x-ray, 90; in pulmonary ventilation and pulmonary circulation, 4
Diatrizoate
compounds, spinal cord and renal toxicity from, 253
toxicity of sodium and methylglucamine salts of, 249
Drugs
ingested, radiopaque codification and x-ray identification of, 180
vasoactive, nephrotoxicity of, following selective intra-arterial injection, 458
Duct, thoracic
collateral lymphaticovenous communications after obstruction of, 12
obstruction of, 188; in dog, 449
Duodenum, cineradiographic and intraluminal pressure changes in, 94

E

Ebstein's anomaly, 63
Echoencephalography, ultrasonic, 247
Edema
in dogs, emboli-induced pulmonary, stability of pulmonary artery pressure during, 3
perivascular, increased pulmonary vascular resistance in dependent zone of isolated dog lung caused by, 10
Editorials
Critical review; exercise in scientific "open forum," 177
Diagnostic radiologic research; an entity, 15
Humane investigator or how to help the harassed editor, 97
In search of quality, 338
Vistas in diagnostic radiologic research; I. Chemically induced alterations in normal and abnormal blood vessels, 176
Emboli, stability of pulmonary artery pressure during pulmonary edema in dogs, induced by, 3
Embolism, fat, of bone, 412
Embolization, intercurrent, during cerebral arteriography, 107
Embryology of normal optic canal and its anomalies, 346

Emphysema
correlation of postmortem human lungs in normal subjects and those with, 169
pulmonary, influence of respiration on venous return in, 407
Emulsion, ethiodol, for lymphography, 29
Enema, toxicity of tannic acid administered by, 408
Esophagus
following segmental resection in newborn dogs, motor function of, 411
incidence of sliding hiatus hernia of, 379
Ethiodol emulsion for lymphography, 29
Extremity (ies)
lower, cinevenography of, 101
lymphography in cases of lymphedema of, in Bancroft's filariasis, 13
Eye, embryology of normal optic canal of, and its anomalies, 346

F

Fat embolism of bone, 412
Fibrillation, ventricular, due to roentgenographic contrast material, 12
Filariasis, Bancroft's, lymphography in cases of lymphedema of extremities in, 13
Flowmeter, electromagnetic, of carotid and vertebral blood flow during intracranial hypertension, 12
Flow pattern studies, experimental, particulate radiographic contrast medium for, 328
Fluctuations, statistical, in radioisotope scanning, data blending to reduce, 333

G

Gastroenteropathy, protein-losing, 6
Gelatin spherules, contrast-loaded, 328
Glands, adrenal, selective angiography of, 332

H

Head, intra-arterial infusion of, 89
Heart
arrhythmia of, due to contrast material, 338
disease, congenital, angiographic determination of size of ascending aorta in, 410
effect of respiration on venous return to, 252
lymphangiography of, 178
relation of maternal volume of, to infant maturity, 465
roentgen classification of malpositions of, 17
Hematomas, subdural, contributions of angiography to pathophysiology of, 172
Hemorrhage
controlled gastro-intestinal, in dogs, aortographic localization of, 245
experimental subarachnoid, spasm of basilar and vertebral arteries caused by, 246
Hernia, sliding hiatus, 379
Hydrogen peroxide, intra-arterial, differential localization of isotopes in tumors with, 1
Hypaque, blood pressure changes in angiography with, 243
Hypertension
intracranial, carotid and vertebral blood flow during, 12
role of atrophic kidney in, 174

I

^{131}I colloidal albumin as agent for scanning liver and spleen, 295
Indicator dilution technique, in coronary blood flow measurement, 129
Infection, acute, collateral lymphatic circulation during, 94
Insects, adult, ^{32}P in larvae to identify sources of, 104
Iophendylate, emulsified, in cranial subarachnoid space, 264
Iothalamate
compounds, spinal cord and renal toxicity from, 253
toxicity of sodium and methylglucamine salts of, 249
Isotopes in tumors, differential localization of, with intra-arterial hydrogen peroxide, 1

K

^{42}K in muscle, 441, 445
Kidney
arterial vasculature of pelvic carcinomas of, 416
arteriography in estimating hemodynamic significance of artery stenoses in, 281
artery and vein flow of, during aortic and inferior vena caval occlusion and retrograde renal phlebography, 148
atrophic; role in hypertension, 174
canine, micro-autoradiographic study of distribution of tritiated sodium diatrizoate in, 271
contractions of arteries of, during arteriography, 329
effect of arterial catheterization of, on renal function, 1
experimental arteriography of, 253
extraction of PAH from, following abdominal aortography, 327
in living rats during development of cortical necrosis of, 3
minute-urography in unilateral stenosis of artery of, 335
relative caliber of arteries of, 410
selective arteriography of, with Teflon catheters, 69
separating vascular components from components of, 220
toxicity of, from iothalamate and diatrizoate compounds, 253

L

Life expectancy, single dose radiation influencing, 409
Lipiodol, intra-arterial, in rabbits, to discover fat embolism of bone, 412
Liver
  ^{131}I colloidal albumin as agent for scanning, 295
  outflow tract and ascites of, 243
  vascular patterns in human metastatic tumors of, 85
Lung (s)
  abnormalities after lymphangiography in function of, 10
  artery of, 87
  autotransplanted, bronchial dynamics and reconstitution of bronchial artery supply in, 363
  diseases, x-ray differential diagnosis of, 342
  effects of contrast media on, 5
  elevated intrabronchial pressure for demonstration of anomalous veins and atrial defects in, 90
  human, 339
  inflation, brief, pulmonary vasoconstriction provoked by, 173
  influence of respiration on venous return in emphysema of, 407
  in vivo detection of antimony deposits in, by differentiated absorption of x-radiation, 244
  isolated dog, increased pulmonary vascular resistance in dependent zone of, caused by perivascular edema, 10
  postmortem human, in normal subjects and patients with emphysema and chronic bronchitis, 169
  postnatal development of vasa vasorum in, 87
  stability of artery pressure of, during emboli-induced pulmonary edema in dogs, 3
  x-ray densitometry in ventilation and circulation of, 4
Lymph
  collateral circulation of, during acute infection and lumbosacral sympathectomy, 94
  nodes
    intrathoracic, direct lymphadenography of, 93
    substernal, radiographic visualization of, 11
  reflux after thoracic duct obstruction, 188
Lymphadenography, direct, of intrathoracic lymph nodes, 93
Lymphangiography
  cardiac, 178
  concepts of protein-losing gastroenteropathy derived from, 6
  pulmonary-function abnormalities after,10
Lymphatico-venous communications after thoracic duct obstruction, 188
Lymphedema of extremities in Bancroft's filariasis, 13
Lymphography
  abdominal, control of, with radioisotopes, 414
  ethiodol emulsion for, 29
  in cases of lymphedema of extremities in Bancroft's filariasis, 13
Lymphoma, postlymphangiogram film as indicator of tumor activity in, 386

M

Malpositions, cardiac, roentgen classification of, 17
Manometry
  motor function of esophagus following segmental resection in newborn dogs evaluated by, 411
  nasal pressure changes during swallowing studied by, 225
Mapping, angiographic, of regional cerebral circulation, 214
Maturity, infant, relation of maternal cardiac volume to, 465
Meglumine iothalamate
  blood pressure changes in angiography with, 243
  in cerebral angiography, complication rates of, 334
Metacarpal cortical thickness, age-dependent changes in, 394
Methylglucamine salts of diatrizoate, iothalamate and metrizoate, toxicity of, 249
Metrizoate, toxicity of sodium and methylglucamine salts of, 249
Micro-autoradiography, distribution of tritiated sodium diatrizoate in canine kidney studied by, 271
Minute-urography in unilateral stenosis of renal artery, 335
Modulation transfer functions, 418
Morphology, urethral, in male dogs, 301
Motor function of esophagus following segmental resection in newborn dogs, 411
Myelitis, transverse, following selective bronchial arteriography, 95
Myelography
  possible application of emulsified pantopaque for, 337
  selective nerve root blocking with phenol under control of, 257
Myelopathy, transverse, following injections of contrast material, 417
Myocardium, extracoronary arteries of, 8

N

Neck, intra-arterial infusion of, 89
Necrosis, renal cortical, in living rats, development of, 3
Needles, disposable catheter, 262
Nephrophlebography, pharmacoangiographic method for improving, 175
Nephrotoxicity of vasoactive drugs following selective intra-arterial injection, 458

Nerve root blocking, selective, with phenol under myelographic control, 257

O

Occlusion
aortic and inferior vena caval, renal artery and vein flow during, 148
experimental IVC, venous encroachment of spinal peridural space due to, 157
Opacification, altered, of external carotid circulation by changes of end expiratory carbon dioxide tension, 123
Outflow tract
hepatic, 243
left ventricular, calibre variations in, 172

P

PAH, renal extraction of, following abdominal aortography, 327
Pancreas, angiography in carcinoma of, 91
Pantopaque, 85, emulsified, 337
Parathyroid, detection of adenomas of, 96
Pathophysiology of subdural hematomas, contributions of angiography to, 172
Pelvis, arterial vasculature of renal carcinomas of, 416
Pharmacoangiography to improve nephrophlebography, 175
Phenol, selective nerve root blocking with, under myelographic control, 257
Phlebography, retrograde renal, artery and vein flow during, 148
Phosphorus, radioactive (^{32}P) in larvae to identify adult insect sources, 104
Photoscanners, 314
Poiseuille equation, fallacy of applying, to segmental arterial stenosis, 9
Positron emitter, quantitative determination of coronary flow with, 11
Postlymphangiogram film as indicator of tumor activity in lymphoma, 386
Potassium in muscle, 441-445
Precipitations in red blood cells after chronic x-ray exposure, 335
Pregnancy, late, possible clinical implications of venous encroachment on spinal peridural space in, 157
Pressure
changes, cineradiographic and intraluminal, in duodenum, 94
elevated intrabronchial, for demonstration of anomalous pulmonary veins and atrial defects, 90
increased intra-abdominal, mechanism of obstruction of infradiaphragmatic portion of inferior vena cava in presence of, 37
intracranial, effect of acute increase of, on blood flow in internal carotid artery, 4
intravascular, response to contrast substance used for angiocardiography of, 170
pulmonary artery, during emboli-induced pulmonary edema in dogs, 3
recordings, cerebrospinal fluid, during carotid angiography, 91
Protein-losing gastroenteropathy, 6
Pyelography, translumbar, 416
Pyelo-ureteral dynamics, normal, 198

Q

Quantitation, organ, rotational errors in, 81, 341

R

Radioactivity, circulating, shielded coil for continuous scintillation monitoring of, 184
Radiography
determination of age dependence of bone thickness by, 144
human carotid artery flow determination using, 113
Radioisotope (s)
control of abdominal lymphography with, 414
factor, equivalent, 8
scanning, data blending to reduce statistical fluctuation in, 333
^{86}Rb in muscle, 441, 445
Reflux
chylous, as effect of experimental thoracic duct obstruction in dog, 449
lymph, after thoracic duct obstruction, 188
Renogram to separate vascular and renal components, 220
Resection, segmental, in newborn dogs, motor function of esophagus following, 411
Resistance, increased pulmonary vascular, in dependent zone of isolated dog lung caused by perivascular edema, 10
Respiration
effect of, on venous return to heart, 252
influence of, on venous return in pulmonary emphysema, 407
Rotation, errors of, in organ quantitation, 81, 341
Rubidium-84, quantitative determination of coronary flow with, 11
Rubidium in muscle, 441, 445

S

Salts, sodium and methylglucamine, of diatrizoate, iothalamate and metrizoate, toxicity of, 249
Scanning, radioisotope, data blending to reduce statistical fluctuations in, 333
Scintillation monitoring, continuous, of circulating radioactivity, shielded coil for, 184

Septum, ventricular, in infancy, defects of, 336
Sodium diatrizoate
50%, blood pressure changes in angiography with, 243
in cerebral angiography, complication rates of, 334
tritiated, in canine kidney, distribution of, 271
Sodium salts of diatrizoate, iothalamate and metrizoate, toxicity of, 249
Space
cranial subarachnoid, emulsified iophendylate in, 264
spinal peridural, venous encroachment on, due to experimental IVC occlusion, 157
Spasm of basilar and vertebral arteries caused by experimental subarachnoid hemorrhage, 246
Spherules, contrast-loaded gelatin, 328
Spine, venous encroachment on peridural space of, 157
Spleen, ^{131}I colloidal albumin as agent for scanning, 295
Splenomegaly in small animals, 106
Stenosis (es)
renal artery, arteriography in estimating hemodynamic significance of, 281
segmental arterial, fallacy of applying Poiseuille equation to, 9
unilateral of renal artery, minute-urography in, 335
Stereotaxis, nonmathematical three-dimensional approach to, 54
Strain, mechanical, on coronary arteries, 306
Sympathectomy, lumbosacral, collateral lymphatic circulation during, 94

T

Table, x-ray for laboratory investigations, 16
Teflon catheters, selective renal arteriography with, 69
Test, double-blind, in comparison of angiographic contrast media for intravascular use, 246
Thermography, medical, 2
Thorax
collateral lymphaticovenous communications after obstruction of duct of, 12
direct lymphadenography of lymph nodes of, 93
duct obstruction of, 188
experimental duct obstruction of, in dog, 449
Toxicity
of sodium and methylglucamine salts of diatrizoate, iothalamate and metrizoate, 249
of tannic acid administered by enema, 408
spinal cord and renal, from iothalamate and diatrizoate compounds, 253
Transfer functions, modulation, 418
Trauma, arterial, related to complications of cerebral angiography, 335
Trunk, pulmonary, postnatal development of vasa vasorum in, 87
Tumor (s)
activity in lymphoma, postlymphangiogram film as indicator of, 386
differential localization of isotopes in, with intra-arterial hydrogen peroxide, 1
metastatic liver, vascular patterns in, 85

U

Ultrasonic echoencephalography; IV. Results of averaging technique to localize cerebral midline structure, 247
Urethra, in male dogs, 301
Urography, minute, in unilateral stenosis of renal artery, 335

V

Valve, mitral, functional mechanism of, 92
Vasa vasorum, postnatal development in pulmonary trunk and arteries of, 87
Vasoconstriction, pulmonary, provoked by brief lung inflation, 173
Vein (s)
anomalous pulmonary, elevated intrabronchial pressure for demonstration of, 90
effect of respiration on, 252
encroachment of, on spinal peridural space due to experimental IVC occlusion, 157
influence of respiration on, in pulmonary emphysema, 407
renal, flow of, during aortic and inferior vena caval occlusion and retrograde renal phlebography, 148
Vena cava, inferior
mechanism of obstruction of infradiaphragmatic portion of, in presence of increased intra-abdominal pressure, 37
renal artery and vein flow during occlusion of, 148
Ventilation, pulmonary, x-ray densitometry in, 4
Ventricle
fibrillation of, due to roentgenographic contrast material, 12
left
computer method for calculation of volume from biplane angiocardiograms of, 139
calibre variations in outflow tract of, 172
right, contractile synchrony between two parts of, 63
septal defects of, in infancy, 336
Vertebra, compositional factors affecting x-ray absorption by, 371
Viscosity, blood, effects of angiocardiographic injections on, 330

W

Waves, monophasic, in duodenum, 94

Authors' Index—Volume 1

A

Aakhus, T., *see* Vestby, G.W.
Abrams, H.L., *see* Fabian, C.E.
see also Takahashi, M.
Adams, D.F., *see* Blank, N.
Amplatz, K.: Cardiac arrhythmia due to contrast material, 339
Disposable catheter needles, 262
see also Elliott, L.P.

B

Bates, B.F., and Bookstein, J.J.: Intercurrent embolization during cerebral arteriography; clinical and experimental observations, 107
Bell, D.: A stereotaxic principle using a nonmathematical three-dimensional approach, 54
Benninghoff, D.L., *see* Takashima, T.
Bernstein, E.F., and Gans, H.: Anticoagulant activity of angiographic contrast media, 162
Blackstone, A., *see* Gimenez, J.L.
Blank, N., Lower, R., and Adams, D.F.: Bronchial dynamics and the reconstitution of bronchial artery supply in the autotransplanted lung, 363
Block, J.B., *see* Rockoff, S.D.
Boijsen, E., and Redman, H.C.: Effect of bradykinin on celiac and superior mesenteric angiography, 422
Bookstein, J.J.: Appraisal of arteriography in estimating the hemodynamic significance of renal artery stenoses, 281
see also Bates, B.F.
Bristow, J.D., *see* Kloster, F.E.

C

Campbell, J.E.: A cinefluorographic analysis of normal pyeloureteral dynamics, 198
Coulombe, M.J., *see* Spencer, R.P.

D

Davidson, A.J.: Micro-autoradiographic study of the distribution of tritiated sodium diatrizoate in the canine kidney, 271
Delin, N.A., and Haverling, M.: Renal artery and vein flow during aortic and inferior vena caval occlusion and retrograde renal phlebography; an experimental study in the pig, 148
Desai, R.G., and Scheff, S.: Demonstration of splenomegaly in small animals, 106
Dineen, J.P., *see* Hipona, F.A.
Ditchek, T., *see* Hipona, F.A.
Doppman, J., Rubinson, R.M., Rockoff, S.D., Vasko, J.S., Shapiro, R., and Morrow, A.C.: Mechanism of obstruction of the infradiaphragmatic portion of the inferior vena cava in the presence of increased intra-abdominal pressure, 37
see also Rockoff, S.D.

E

Edling, N.P.G., and Ovenfors, C.O.: Selective renal arteriography with Teflon catheters; an experimental study in dogs, 69
Elliott, L.P., Jue, K.L., and Amplatz, K.: A Roentgen classification of cardiac malpositions, 17

F

Fabian, C.E., Mundt, W.P., and Abrams, H.L.: Ebstein's anomaly; the direct demonstration of contractile synchrony between the two parts of the right ventricle, 63
and Nudelman, E.J., and Abrams, H.L.: Postlymphangiogram film as an indicator of tumor activity in lymphoma, 386
Fischer, H.W.: Comments on transverse myelopathy following injections of contrast material, 417
Experiences in seeking an ethiodol emulsion for lymphography, 29
Fraser, R.G.: Functional evaluation of human lungs, 340
Frey, H.S.: Evaluation of photoscanners, 314

G

Gans, H., *see* Bernstein, E.F.
Garn, S.M., and Hull, E.I.: Taller individuals lose less bone as they grow older, 255
see also Spencer, R.P.
Gimenez, J.L., and Blackstone, A.: Versatile x-ray table for laboratory investigations, 16
Graban, W.: Distribution of potassium (^{42}K) and rubidium (^{86}Rb) in different parts of denervated muscle, 445
Localization of potassium (^{42}K) and rubidium (^{86}Rb) in muscle, 441
Gramiak, R., and Kelley, M.L., Jr.: Nasal pressure changes during swallowing: a combined cineradiographic and manometric study, 225
Greenspan, R. H.: The critical review; an exercise in the scientific "open forum," 177
see also Rockoff, S.D.
Gregg, E.C.: Pedagogical note on modulation transfer functions, 418
Greitz, T., and Lindblom, U.: Selective nerve root blocking with phenol under myelographic control, 257
and Reuter, S.R.: Methods for angiographic mapping of regional cerebral circulation, 214
Griswold, H.E., *see* Kloster, F.E.

H

Hald, T., *see* Mygind, T.
Hall, F.M., and Monks, G.K.: The renogram; a method of separating vascular and renal components, 220
Harrington, G., Michie, C., Lynch, P.R., Russell, M.A., and Oppenheimer, M.J.: Blood–brain barrier changes associated with unilateral cerebral angiography, 431
Haverling, M., *see* Delin, N.A.
Hehre, F.W., *see* Hipona, F.A.
Hendrick, C.K., *see* Schreiber, M.H.
Hickman, C., and Sargent, E.N.: A new approach for identification of adult insect sources, 104
Hilal, S.K.: Human carotid artery flow determination using a radiographic technique, 113
Hipona, F.A., Ditchek, T., and Dineen, J.P.: Cardiac lymphangiography; a preliminary report on a roentgen study of the cardiac lymphatics in the dog, 178
and Yules, R., and Hehre, F.W.: Venous encroachment on the spinal peridural space due to experimental IVC occlusion; possible clinical implications in late pregnancy, 157
Huizinga, T., *see* Penning, L.
Hull, E.I., *see* Garn, S.M.

J

Jacobs, W.R., *see* Kloster, F.E.
Jue, K.L., *see* Elliott, L.P.

K

Kelley, M.L., Jr., *see* Gramiak, R.
Kerckhoffs, H.P.M., *see* Penning, L.
Ketcham, A., *see* Rockoff, S.D.
Kier, E.L.: Embryology of the normal optic canal and its anomalies; an anatomic and roentgenographic study, 346

Kloster, F.E., Bristow, J.D., Jacobs, W.R., Porter, G.A., and Griswold, H.E.: Hemodynamic effects of angiocardiography, 398
Kreuger, T.P., *see* Rockoff, S.D.
Kupic, E.A., Neyazaki, T., Sugden, R., and Sapirstein, L.A.: Theoretical limitations of the indicator dilution technique in coronary blood flow measurement, 129

L

Lang, J.H., *see* Lasser, E.C.
Lasser, E.C., and Lang, J.H.: Inhibition of acetylcholinesterase by some organic contrast media; a preliminary communication, 237
Lindblom, U., *see* Greitz, T.
Lipchik, E.O., *see* Nelson, C.N.
Lodwick, G.S.: Computer-aided diagnosis in radiology; a research plan, 72
Loken, M.K., Staab, E.V., and Shea, A.W.: ^{131}I colloidal albumin as an agent for scanning liver and spleen; an experimental study in animals and man, 295
Lower, R., *see* Blank, N.
Ludin, H.: Rotational errors in organ quantitation, 341
Lynch, P.R., *see* Harrington, G.

M

Margolis, G.: Comments on transverse myelopathy following injections of contrast material, 417
McGanity, W.J., *see* Schreiber, M.H.
McIntyre, A.R., *see* Rappolt, R.T., Sr.
Melnick, G.S.: Cardiac arrhythmia due to contrast material, 338
Meyers, P.H., Moser, P.J., Ostrolenk, D.G., and Nice, C.M., Jr.: Instruction in x-ray differential diagnosis of lung diseases; comparison of a linear program with a traditional lecture presentation, 342
Michie, C., *see* Harrington, G.
Monks, G.K., *see* Hall, F.M.
Morrow, A.C., *see* Doppman, J.
Moser, P.J., *see* Meyers, P.H.
Mundt, W.P., *see* Fabian, C.E.
Mygind, T., and Hald, T.: Radiological analysis of urethral morphology and function in male dogs, 301

N

Nelson, C.N., and Lipchik, E.O.: A computer method for calculations of left ventricular volume from biplane angiocardiograms, 139
Neyazaki, T., *see* Kupic, E.A.
Nice, C.M., Jr., *see* Meyers, P.H.
Nichols, M.M., *see* Schreiber, M.H.
Nordenström, B.: Mechanical strain on certain sections of the coronary arteries; a preliminary report, 306
see also Rockoff, S.D.
Nudelman, E.J., *see* Fabian, C.E.

O

Oderr, C.: Functional evaluation of human lungs, 339
Olin, T.B., *see* Redman, H.C.
Ommaya, A.K., *see* Rockoff, S.D.
Oppenheimer, M.J., *see* Harrington, G.
Ostrolenk, D.G., *see* Meyers, P.H.
Ovenfors, C.O., *see* Edling, N.P.G.

P

Penning, L., Kerckhoffs, H.P.M., and Huizinga, T.: Experimental evaluation of emulsified iophendylate in the cranial subarachnoid space, 264
Petty, T.L.: Functional evaluation of human lungs, 341
Porter, G.A., *see* Kloster, F.E.
Pyke, R.E., *see* Vose, G.P.

R

Rappolt, R.T., Sr., and McIntyre, A.R.: Radiopaque codification and x-ray identification of ingested drugs, 180
Redman, H.C., Olin, T.B., Saldeen, T., and Reuter, S.R.: Nephrotoxicity of some vasoactive drugs following selective intra-arterial injection, 458
see also Boijsen, E.
Reuter, S.R., *see* Greitz, T.
see also Redman, H.C.
Rockoff, S.D.: In search of quality, 338
Vistas in diagnostic radiologic research; I. Chemically induced alterations in normal and abnormal blood vessels, 176
and Doppman, J., Block, J.B., and Ketcham, A.: Variable response of tumor vessels to intra-arterial epinephrine; an angiographic study in man, 205
and Doppman, J., Kreuger, T.P., Thomas, L.J., and Ommaya, A.K.: Altered opacification of the external carotid circulation by changes of end expiratory carbon dioxide tension; an angiographic study in man, 123
and Nordenström, B., and Greenspan, R.H.: Diagnostic radiologic research; an entity, 15
see also Doppman, J.
Rubinson, R.M., *see* Doppman, J.
Russell, M.A., *see* Harrington, G.

S

Saldeen, T., *see* Redman, H.C.
Sapirstein, L.A., *see* Kupic, E.A.
Sargent, E.N., *see* Hickman, C.
Scheff, S., *see* Desai, R.G.
Schreiber, M.H., Hendrick, C.K., McGanity, W.J., and Nichols, M.M.: Relation of maternal cardiac volume to infant maturity, 465
Shapiro, R., *see* Doppman, J.
Shea, A.W., *see* Loken, M.K.
Spencer, R.P.: Observations on rotational errors in quantitation of organ dimensions; preliminary report, 81
Observations on the detection of parathyroid adenomas, 96
Rotational errors in organ quantitation, 341
and Coulombe, M.J.: Quantitation of the radiographically determined age dependence of bone thickness, 144
and Garn, S.M., and Coulombe, M.J.: Age-dependent changes in metacarpal cortical thickness in two populations, 394
Staab, E.V., *see* Loken, M.K.
Stickley, G.F.: The humane investigator or how to help the harassed editor, 97
Sugden, R., *see* Kupic, E.A.

T

Takahashi, M., and Abrams, H.L.: Cinevenography of the lower extremity; a preliminary report, 101
Takashima, T., and Benninghoff, D.L.: Effects of experimental thoracic duct obstruction in the dog; II. Chylous reflux, 449
Lymphatico-venous communications and lymph reflux after thoracic duct obstruction; an experimental study in the dog, 188
Thomas, L.J., *see* Rockoff, S.D.
Threefoot, S.A.: A shielded coil for continuous scintillation monitoring of circulating radioactivity, 184

V

Vasko, J.S., *see* Doppman, J.
Vestby, G.W., and Aakhus, T.: Incidence of sliding hernia, 379
Vose, G.P., and Pyke, R.E.: Compositional factors affecting vertebral x-ray absorption, 371

Y

Yules, R., *see* Hipona, F.A.